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MR2919-13

Serial Number: 09/912,455

Reply to Office Action dated 16 December 2003

REMARKS

At the outset, the courtesies extended by the Examiner in granting the 15 March 2004 interview, and the professionalism he demonstrated during that interview, are appreciatively noted. During the interview, the prior art cited by the Examiner was discussed in light of the clarifying amendments proposed to Claim 1 by the undersigned Attorney.

Responsive to the 16 December 2003 Office Action, Claim 1 is hereby amended in accordance with the discussions had at the interview for further prosecution with the other pending Claims. It is believed that with such amendment of Claim 1, there is further clarification of its recitations for this Patent Application.

In the Office Action, the Examiner maintained his earlier rejection of Claims 1, 3-12, and 15-25 under 35 U.S.C. § 103(e) as being unpatentable over the Matsumoto, et al. reference. The Examiner also maintained his rejection of Claim 2 under the same statutory section as being unpatentable over Matsumoto, et al. in view of Applicant's admitted prior art. In setting forth this rejection, the Examiner stated that features such as the side stem antenna configuration, and the antenna's mounting on a printed circuit board were not sufficiently recited in the rejected Claims. Regarding the latter of these features, the Examiner observed that wording to such effect is found in the Claims, but only in the Preamble. For that reason, the Examiner gave the feature no patentable weight.

MR2919-13

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As newly-amended independent Claim 1 now more clearly recites, Applicant's claimed method of manufacturing an antenna includes among its features accordingly stamping out a unitary piece of material from a larger section of material, with that unitary piece including "a stem area having a first end and a second end for mounting on ... [a] printed circuit board." The unitary piece further includes "a circular area having a center and an outer region peripherally thereabout." The stem's first end is "joined with" this "outer region" of the circular area.

Clearly, neither the cited Matsumoto, et al. reference nor Applicant's admitted prior art discloses the full combination of these and other features now more clearly recited by newly-amended independent Claim 1. In both, for instance, the top part of the antenna is necessarily supported by a centrally disposed element. Hence, neither Matsumoto, et al. nor the admitted prior art discloses any "stem area" whose "first end [is] joined with the outer region" of "a circular area having a center and an outer region peripherally thereabout," as Claim 1 now more clearly recites.

In the case of Matsumoto, et al., moreover, the antenna is hardly intended for mounting upon a printed circuit board. Indeed, its top load plate 10A is supported specifically by a "shortline" 31A for the express purpose of "shorting between the top plate ... and the ground plate," (Column 1; Lines 18-19). Shortline 31A extends necessarily to a radiating ground plate 20A which serves,

MR2919-13

Serial Number: 09/912,455

Reply to Office Action dated 16 December 2003

mechanically, as a stable supporting base for the antenna. This ground plate 20A is configured and prescribed for mounting upon a vehicle's roof or other such surface, not to any printed circuit board. Moreover, a separate "feedline" 32A also extends from the load plate 10A, specifically for connection to a feeding antenna cable 40, not for mounting on any printed circuit board.

While Matsumoto, et al. does disclose the use of a printed circuit board, it does so only to provide "a matching element 30C in the form of a printed board with a conductor pattern on a dielectric substrate" which "define[] ... shortline 31C and feedline 32C" in the embodiment of Fig. 9 (Column 4; Lines 29-32). Even in that embodiment, the antenna itself, along with its shortline 31C and feedline 32C, is mounted upon a vehicle roof surface via a wide ground plate base 20C, not to any printed circuit board.

It is respectfully submitted, therefore, that the cited Matsumoto, et al. reference and the admitted prior art, even when considered together, fail to disclose the unique combination of elements now more clearly recited by Applicant's pending claims for the purposes and objectives disclosed in the subject Patent Application.

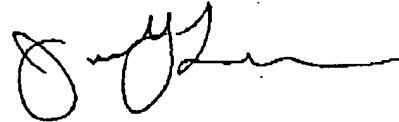
MR2919-13

Serial Number: 09/912,455

Reply to Office Action dated 16 December 2003

It is now believed that the subject Patent Application has been placed fully
in condition for allowance, and such action is respectfully requested.

Respectfully submitted,



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Date: 16 March 2004

